

8. SPR Series (Unshielded Type)

Applications

DC/DC converters, etc.
Other various electronic appliances.

Features

Silver plated type, low cost design.
Available on tape and reel for auto surface mounting.



Inductance and Rated Current ranges

Part Series	Inductances range	Rated Current range
* SPR0301	1.0~390μH	1.40~0.10A
* SPR0302	1.0~470μH	2.20~0.070A
* SPR0403	1.0~1000μH	2.70~0.109A
* SPR0502	1.0~1000μH	4.00~0.14A
* SPR0503	1.0~1000μH	4.50~0.13A
* SPR0504	1.0~1000μH	5.00~0.26A
* SPR0703	1.0~1000μH	1.64~0.20A
* SPR0705	1.0~1000μH	3.40~0.30A

(Dimension data (Refer to Fig. 1))

Part Series	Inductances range	Rated Current range
* SPR0603	1.5~470μH	3.0~0.15A
* SPR0604	1.2~820μH	4.2~0.14A
* SPR0805	1.5~4700μH	6.0~0.08A
* SPR1006	1.5~4700μH	6.4~0.10A

(Dimension data (Refer to Fig. 2))

Characteristics

Rated DC Current :

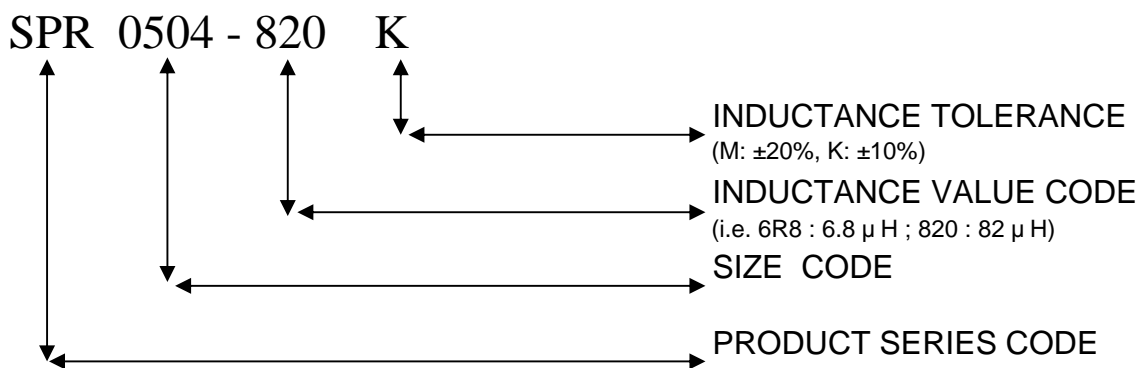
The inductance becomes 10% lower than its initial value or temperature of coil increases to T=40 . (Ta=25)

Operating temperature range : -40 ~+125 .

Test equipment (Electrical specifications at 25) :

L: HP4284A LCR meter; DCR: Milli-ohm meter.

Part Numbering System



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Dimensions (mm)

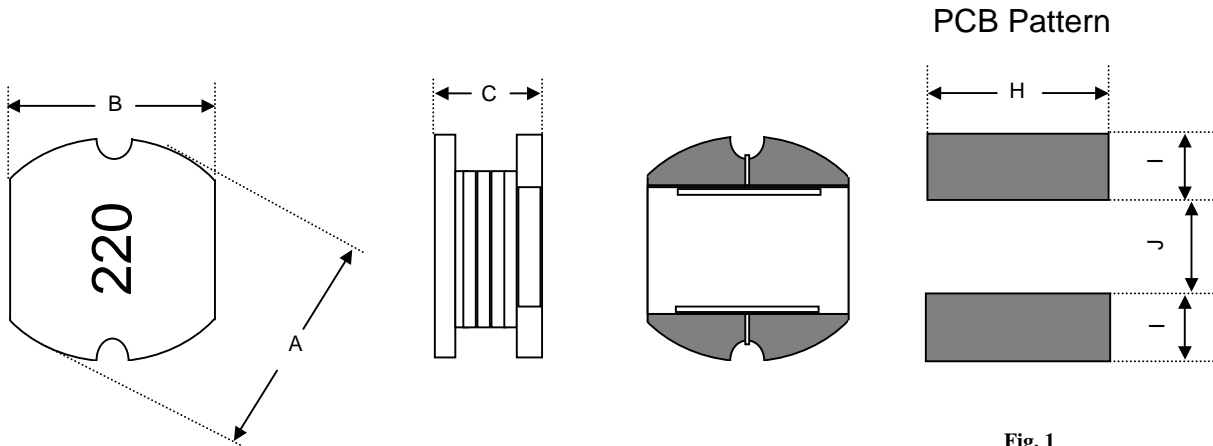


Fig. 1

Series	A	B	C (Max.)	H	I	J
SPR0301	3.5±0.3	3.0±0.3	1.45	3.50	1.60	0.8
SPR0302	3.5±0.3	3.0±0.3	2.40	3.50	1.60	0.8
SPR0403	4.5±0.3	4.0±0.3	3.50	4.50	1.75	1.5
SPR0502	5.8±0.3	5.2±0.3	2.80	5.50	2.15	1.7
SPR0503	5.8±0.3	5.2±0.3	3.30	5.50	2.15	1.7
SPR0504	5.8±0.3	5.2±0.3	4.80	5.50	2.15	1.7
SPR0703	7.8±0.3	7.0±0.3	4.00	7.50	3.00	2.0
SPR0705	7.8±0.3	7.0±0.3	5.50	7.50	3.00	2.0

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Electrical Characteristics

SPR 0502 / 0503 / 0504 TYPE

Inductance value code	L (μH)	DC Resistance () Max.			Rated DC current (A) Max.		
		0502	0503	0504	0502	0503	0504
1R0	1.0	0.021	0.030	0.010	4.000	4.500	5.000
1R2	1.2	0.050	0.030	0.012	4.200	4.200	4.770
1R5	1.5	0.060	0.030	0.013	4.000	4.100	4.500
1R8	1.8	0.065	0.030	0.016	3.700	3.700	4.250
2R2	2.2	0.070	0.030	0.017	3.500	3.500	4.200
2R7	2.7	0.080	0.040	0.025	3.200	3.200	4.000
3R3	3.3	0.100	0.050	0.034	2.700	2.800	2.500
3R9	3.9	0.120	0.060	0.035	2.400	2.600	2.200
4R7	4.7	0.140	0.070	0.035	2.000	2.500	2.000
5R6	5.6	0.150	0.080	0.042	1.800	2.400	1.820
6R8	6.8	0.160	0.090	0.060	1.500	2.200	1.690
8R2	8.2	0.170	0.100	0.060	1.400	2.000	1.560
100	10	0.200	0.130	0.100	1.300	1.800	1.440
120	12	0.230	0.160	0.120	1.100	1.750	1.400
150	15	0.250	0.190	0.140	1.050	1.700	1.300
180	18	0.300	0.210	0.150	1.000	1.600	1.230
220	22	0.350	0.280	0.180	0.900	1.500	1.110
270	27	0.400	0.320	0.200	0.850	1.400	0.970
330	33	0.500	0.380	0.230	0.750	1.100	0.880
390	39	0.550	0.420	0.320	0.700	1.000	0.800
470	47	0.650	0.430	0.370	0.600	0.900	0.720
560	56	0.760	0.500	0.420	0.550	0.850	0.680
680	68	0.950	0.680	0.460	0.500	0.800	0.610
820	82	1.200	0.820	0.600	0.450	0.650	0.580
101	100	1.400	1.100	0.700	0.400	0.600	0.520
121	120	1.750	1.200	0.930	0.350	0.580	0.480
151	150	2.000	1.500	1.100	0.250	0.430	0.400
181	180	2.600	1.800	1.380	0.250	0.410	0.380
221	220	3.000	2.000	1.570	0.200	0.380	0.350
271	270	3.700	2.900	1.600	0.180	0.350	0.340
331	330	4.300	3.300	1.820	0.170	0.280	0.320
391	390	6.000	3.700	-	0.160	0.260	-
471	470	6.700	4.900	2.760	0.150	0.200	0.300
561	560	-	5.000	3.100	-	0.190	0.290
681	680	-	6.000	4.050	-	0.180	0.280
821	820	-	6.600	5.560	-	0.150	0.270
102	1000	15.00	8.000	5.740	0.140	0.130	0.260

1. Test Frequency :
1.0μH~8.2μH @100KHz 0.25V, 10μH~1000μH @1KHz 0.25V
2. Tolerancce of Inductance :
1.0μH~8.2μH (M)±20% , 10μH~1000μH (K)±10% , (M)±20%
3. Rated DC Current : the inductance becomes 10% lower than its initial value or temperature of coil increases to T=40 . (Ta=25)
4. Operating temperature range : -40 ~+125 .